REMARKS

The Examiner rejected claim 21 as being anticipated by Lee (U.S. Pat. No. 6,735,391). Claim 21 is directed to a Wavelength Division Multiplexing (WDM) optical network comprising a plurality of nodes connected in a loop. As amended, claim 21 recites a link control laser to inject laser radiation into the loop at a point where it is desired that a lasing peak be generated and allowed to circulate around the loop. The laser radiation injected into the loop is centered around a λ_{LINK} wavelength. Injecting the laser radiation as claimed avoids the damage to network components (e.g., amplifiers, etc.) from the spikes in optical power that occur whenever there is a break in the loop.

Lee, which discloses an automatic recovery method for a looped WDM network, does not disclose a link control laser to inject laser radiation into the loop as claimed. In stark contrast, Lee discloses a method that depends on the same types of optical power spikes that the claimed invention avoids. More particularly, Lee monitors the optical power in a pair of parallel optical links that connect a plurality of nodes in a closed loop. Whenever Lee detects "a significant gain" in optical power, Lee determines that a link failure has occurred and switches transmission paths. *Lee*, col. 5, ll. 30-45.

The fact that Lee requires power spikes to operate is evident. According to the above-cited passage of Lee, the optical amplifiers in the nodes continue to operate after a failure under the same conditions that existed before the failure. Therefore, there is no change in output power of the amplifiers. Further, Lee explicitly notes the importance of setting the gain of the optical amplifiers high enough so that upon a link failure, the gain in the closed loop is certain to exceed 1. Such power spikes can be dangerous because they can damage network components. Additionally, purposefully setting the gain as in Lee increases noise and degrades network performance. Injecting the laser radiation as in the claimed invention, however, allows

the gain to be kept low enough to avoid sudden power spikes. It also keeps noise levels low thereby increasing signal quality and optimizing network performance.

Lee does not disclose a link control laser to inject laser radiation into a looped optical network, and in fact, has no need for one as claimed. Therefore, Lee fails to anticipate claim 21 or any of its dependant claims.

The Examiner also rejected claim 38 as being anticipated by Lee for reasons similar to those stated for claim 21. However, claim 38 has been amended to include language similar to that of claim 21. As such, for reasons similar to those stated above, Lee fails to anticipate claim 38 or any of its dependent claims.

Finally, the Examiner provisionally rejected claims 21-40 on the ground of nonstatutory obviousness-type double patenting over claims 14-26 of co-pending Application No. 10/542,296 in view of the patent to Allen (U.S. Pat. No. 6,388,802). Applicant respectfully disagrees and requests that the Examiner withdraw the rejection.

As amended, the independent claims recite a link control laser configured to inject laser radiation centered around a λ_{LINK} wavelength into the loop at a point of the loop where it is desired that a lasing peak be generated and allowed to circulate in the loop. The co-pending '296 application does not disclose a link control laser to inject laser radiation into the loop. Further, Allen does not allow laser radiation injected into the loop at a first location to circulate in the loop. Rather, Allen discloses removing the radiation from the loop. Therefore, the claimed

invention is distinct from the references cited by the Examiner and the non-statutory obviousness-type double patenting rejection should be withdrawn.

In light of the foregoing amendments and remarks, Applicants respectfully request that the Examiner allow all pending claims.

Respectfully submitted,

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